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MANAGEMENT DISCUSSION SECTION

Operator: Thank you for standing by. Good day, everyone, and welcome to The Boeing Company's Fourth Quarter 2020 Earnings Conference Call. Today's call is being recorded. The management discussion and slide presentation plus the analyst question-and-answer session are being broadcast live over the Internet. [Operator Instructions]

At this time, for opening remarks and introductions, I'm turning the call over to Ms. Maurita Sutedja, Vice President of Investor Relations for The Boeing Company. Ms. Sutedja, please go ahead.

Maurita B. Sutedja  
Vice President-Investor Relations, The Boeing Co.

Thank you, John. Good morning. Welcome to Boeing's Fourth Quarter 2020 Earnings Call. I'm Maurita Sutedja, and with me today are Dave Calhoun, Boeing's President and Chief Executive Officer; and Greg Smith, Boeing's Executive Vice President of Enterprise Operations and Chief Financial Officer.

As a reminder, you can follow today's broadcast and slide presentation through our website at boeing.com.

As always, we have provided detailed financial information in our press release issued earlier today. Projections, estimates, and goals we included in our discussion this morning are likely to involve risks, which are detailed in our news release, in our various SEC filings, and in the forward-looking statement disclaimer at the end of this web presentation. In addition, we refer you to our earnings release and presentation for disclosure and reconciliation of certain non-GAAP measures.

Now, I will turn the call over to Dave Calhoun.

David L. Calhoun  
President, Chief Executive Officer & Director, The Boeing Co.

Yeah. Thank you, Maurita. Good morning, everyone.

2020 was a historically challenging year for our world, for our industry, for our business, and our communities. I hope you are all staying safe. We are managing our operations each and every day the best that we can to minimize disruption, while always protecting the well-being of our associates.

A lot has happened in the last few months. So let me begin by sharing some of the highlights, starting with the 737 MAX on the next chart. We made significant progress on the 737 program this quarter. The FAA in the United States, ANAC in Brazil, Transport Canada, and just this morning, EASA in Europe have approved the resumption of 737 MAX operations, marking important milestones on our return to service journey.

I would encourage all of you to read the various reports issued by our regulators regarding the intense scrutiny they put our airplanes through. This is the culmination of a comprehensive effort including roughly 400,000 engineering hours, 1,400 test and check flights, and over 3,000 flight hours completed on the airplane. Following one of the most rigorous certification efforts in aviation history, we're confident in the safety of our airplane.
We continue to work with global regulators and our customers to safely return the airplane to service worldwide. We assume that the remaining non-US regulatory approvals will occur during the first half of 2021 and that we will continue to follow their lead in the steps ahead.

Our first priority is assisting our customers with return to service for their existing parked fleet. Every airline has different operational considerations for returning planes to revenue service and timelines for training their pilots. We're supporting each of them as they go through their process.

Next, we're focused on safely delivering our 737 MAX airplanes that are in inventory, which began in December of last year. Prior to the delivery, teams are performing all the necessary tests and ensuring each airplane receives customized care and rolls into a delivery stall ready for customer acceptance and FAA review.

Since the FAA's approval to return to operations on November 18, we have delivered more than 40 737 MAX aircraft to our customers, and five airlines have safely returned their fleets to service, safely flying over 2,700 flights and approximately 5,500 flight hours as of January 25. Based on conversations with our customers, passenger load factors to date have been relatively consistent with the airline total fleet averages. We're encouraged by the progress to date and also pleased with the confidence our customers have placed in us and the airplane, highlighted most recently by Ryanair and Alaska Air announcements.

In addition to our 737 progress, we continue delivering for our defense, space and services customers. Let me highlight a few of these accomplishments. Our Defense, Security & Space team achieved first flight of the MQ-25 unmanned aircraft with an aerial refueling store and completed engineering design review for Wideband Global SATCOM-11+ communication satellite. Our Global Services team was awarded a performance-based logistics contract for the Singapore F-15SG fleet and selected to provide P-8A training for the Royal New Zealand Air Force.

Now let's turn to the next slide to discuss the industry environment. Overall, the government services and defense and space businesses remain significant and relatively stable, and we continue to see solid global demand for our major programs. Nevertheless, the scale of government spending on COVID-19 response has the potential to add pressure to global defense spending in the years ahead.

Broad support for our defense portfolio is underscored by the $5 billion of orders BDS booked in the fourth quarter across key franchise platforms. Just this month, we also received the contract awards for Lot 6 and Lot 7, which include 27 additional KC-46 tankers for the U.S. Air Force. Additionally, the fiscal year 2021 defense bill includes investments in products and services from across our defense, space, and government services business. The diversity of our portfolio will continue to help provide critical stability for us as we move forward.

In the commercial market, while many of our key long-term fundamentals remain intact, we continue to see near-term market pressure due to COVID-19. Despite solid progress on the vaccine front, the next six to nine months will remain very challenging for our airline customers and the entire industry. COVID-19 case rates continue to be high, and travel restrictions remain in place, putting significant pressure on passenger traffic.

Similar to the trends we saw last quarter, the domestic market is leading the recovery, albeit a slow pace. Domestic traffic in November improved slightly to 41% below 2019. On the other hand, international operations continued to be depressed with November traffic still 88% below the prior year.

Recovery in the international segment has been weak due in large part to the absence of coordinated global policies on cross-border entry protocols. The uncertainty in the international markets has meant that the active
fleet is still around three-quarters the size of its pre-crisis level. Coupled with utilization rates that are below historical averages, airlines are flying just about half of their normal operations at the global level.

Regionally, we're seeing case rates and government travel restrictions continue to evolve, resulting in different recovery trajectories. China domestic passenger traffic, for example, has rebounded significantly, although it's not without risk. Europe is experiencing a pullback, because of the resurgence of COVID-19 and related government restrictions. And then finally, in North America, traffic remains more than 60% below our 2019 levels, and these dynamics continue to drive a very uneven recovery.

As anticipated, the number of aircraft being retired from the active fleet continues to grow, 1,300 and growing. We expect this trend to continue as our customers focus on retiring their oldest and least efficient airplanes and replacing them with new airplanes that will be as much as 25% to 40% more fuel efficient and better for the environment. The longer it takes to put COVID in the rearview mirror, the more retirements we will see.

As for the freighter market, we're seeing an interesting dynamic with more freighters flying today than before the pandemic, due to the limited belly cargo capacity from passenger airplanes. While overall cargo traffic showed a year-on-year decline, yields have remained elevated. The dramatic growth of e-commerce in the past year has fuelled express freighter expansion. This has supported the demand for our cargo aircraft, as seen in recent orders from DHL for eight 777 freighters and from Atlas Air for four 747 freighters. We also added incremental freighter conversion orders to our Global Services backlog. And over the long run, cargo demand will continue to be driven by global trade and GDP growth and recovery.

We're encouraged by the speed of vaccine development and efficacy rates. These trends bolster our medium-term outlook and support our belief in the long-term [ph] trend strength (00:10:18) of the market. Consistent with what we had shared previously as well as IATA and other industry groups, we expect it will take around three years for travel to return to the 2019 levels and a few years beyond that to return to our long-term growth trends.

Again, we see the recovery in three phases. First, we're seeing domestic traffic improving in places like Brazil, the United States, India, and other large domestic markets. Next, regional markets should begin to recover such as intra-Asia, intra-Europe, and intra-Americas flights. And then finally, long-haul international routes, which require the most coordination, will be the last to bounce back. Therefore, demand for narrow-body aircraft is expected to recover quite a bit faster, while wide-body demand will remain challenged for a longer period.

As we move forward, testing mechanisms, progress on vaccine distribution, and coordinated government interactions will be key drivers of the recovery. We will continue working with the industry through our Confident Travel Initiative. Industry and academic studies continue to demonstrate that with multiple layers of protection including HEPA filters, enhanced cleaning procedures, and the use of personal face coverings that the risk of transmission while flying is quite low. Collaboration between governments is an important element for implementing new screening protocols, which can even further reduce the risk of transmission.

In the commercial services market, we saw a modest incremental demand improvement in the fourth quarter. Although we are starting to see some stability, the recovery has been slow, and we continue to anticipate it will take multiple years to reach our previous demand levels. Accelerated retirements will also result in newer fleets when we emerge from the pandemic and that will reduce service demand and prolong their recovery.

Given the challenging environment, managing liquidity continues to be vital for the aerospace industry to bridge us to recovery. And despite the unprecedented situation, there generally continues to be liquidity in the market for our customers and for Boeing. Financiers and investors understand the long-term value proposition of aircraft and
the fundamental need to connect the world, and this has been demonstrated by the broad global interest in the space and the new entrants into the market over the past several years.

We supported the COVID relief and stimulus packages passed by Congress last year and similar efforts underway globally. These relief programs including access to financing have been helpful to our customers as well as number of our suppliers, and we believe that support will help enable a faster recovery for the industry as we are navigating the pandemic.

As we see airlines adapt to these market realities, product differentiation and versatility will be key. Our product lineup remains well-positioned to meet our customer needs and support airline plans to gain efficiencies and reach emission goals. For example, our digital solutions continue to provide important capabilities to our customers, as highlighted by Frontier Airlines recent decision to sign a 10-year digital services agreement with us for their fleet. Our attractive portfolio and the diversity of our backlog provide a strong foundation as we prepare to recover and grow in the future.

Now let’s turn to commercial airplane production rates on slide 4. We’re closely coordinating with our customers to understand their fleet needs, while monitoring the broader market environment to ensure we’re aligning supply with demand. Let me provide some key updates across our programs.

Starting with the 787 program, as we’ve shared, we’re conducting comprehensive inspections on undelivered airplanes, both in Everett and in South Carolina. Since last quarter, we’ve expanded the scope of those inspections, including work done at our supplier partners. Our assessment shows that none of the issues identified represent safety of flight concerns. Nevertheless, we remain committed to taking the time to ensure each airplane meets our rigorous engineering specifications. And although this work has a near-term impact for us, in terms of both schedule and cost, it is the right thing to do, and we continue to be in coordination with the FAA and our customers throughout the process. Transparency is clear.

Through our analysis, we’ve been able to determine the resolution for the majority of previously identified areas including our major join sections. In some cases, this requires inspections and rework, while in other areas no further action is required. We’ve made good progress and are now completing analysis on a few remaining areas to validate the next steps. As we see it today, this work may take a few more weeks, but we will provide our engineers the time they need to complete that analysis.

We are implementing changes in the production process to ensure newly built airplanes meet our specifications and do not require further inspection. This is consistent with our determination to eliminate rework from our production system to position us on stronger footing when the market recovers. We’re looking forward to resuming 787 deliveries to our customers, but as I discussed, there’s still work to be done.

Based on what we know today, we expect 787 deliveries to resume later this quarter. However, it will be back-end loaded with no delivery this month and most likely very few, if any, in February. Also, based on what we know today, we still expect to deliver the vast majority of the 787 aircraft inventory by the end of the year. We will keep you updated on the progress. As we’ve previously shared, given the wide-body market environment, we’re in the process of transitioning to a rate of five per month in March, at which point 787 final assembly will be consolidated to Boeing South Carolina.

On the 777/777X programs, we now anticipate that the first 777X delivery will occur in late 2023. This schedule and the financial impact to the program this quarter reflect a number of factors including an updated assessment of global certification requirements, the latest assessment of COVID-19 impacts on market demand, and
discussions with our customers with respect to delivery timing. We're working closely with global regulators on all aspects of the 777X development. This involves listening to all their feedback and applying lessons learned from our experiences on the 737 MAX program recertification and applying to our 777X certification plan. It also involves making prudent design modifications as necessary to meet the various global regulators' expectations.

As part of our assessment, we've made the decision to implement certain modifications to the aircraft design. Our decision to make these modifications, which will involve firmware and hardware changes to the actuator control electronics reflects our current judgment of global regulators' compliance expectations. This decision has led to these revised schedule assumptions.

COVID-19 has had a significant impact on passenger traffic, particularly international long-haul routes serviced by large wide-bodies such as the 777X, which has shifted the anticipated replacement wave and overall demand for wide-body airplanes to the right. Additionally, the challenging business climate is impacting our 777X customers. These broader market factors coupled with our conversations with our customers about preferred delivery timing informed our current assumptions. As a result of these updated program assumptions, we booked a $6.5 billion pre-tax charge in the quarter, a significant component of which is driven by a reduction in the program's initial accounting quantity. Greg will go through the financial impact in greater detail a little later.

Despite the challenges we and the industry are facing, we are confident in the 777X airplane and the unmatched capability it will offer our customers. With the most payload capacity and lowest operating cost per seat of any wide-body, the 777X completes our market-leading wide-body family with a distinct competitive advantage. Across the total wide-body market of more than 8,000 projected deliveries over the next two decades, we see replacement demand for over 1,500 large wide-body airplanes, which are well suited for the 777X.

We also continue to see strong freighter demand and good delivery pace for our current 777 freighter. Our production rate expectations for the combined 777/777X program remains at two per month in 2021. We continue to assess our production plans to efficiently transition to the 777X.

Turning now to the 737 program, we’re currently producing at a low rate and expect to gradually increase the rate to 31 per month in early 2022, and we expect further gradual increases to correspond with market demand. We will continue to assess the delivery profile for 2021, as it will help inform our 737 production ramp, our ramp plan, and we will continue to communicate transparently with our supply chain to ensure stability. At the end of the quarter, we had approximately 3,300 aircraft in our 737 backlog. There's no change to our production rate plan for the 747 or the 767.

The market continues to be dynamic, and we will monitor closely, as we prudently balance supply and demand across all of our programs. Although this remains an unprecedented and uncertain time, we are confident air travel will return. And when it does, we will be ready to support our customers with a well-positioned family of airplanes.

Now, let's quickly look at our 2021 priorities on slide 5. As you'll see, our priorities remain consistent. Navigating through this global pandemic and rebuilding stronger on the other side continues to be a key focus, along with safely returning the 737 to service worldwide, building on our efforts over the past two years. We remain committed to working closely with all of our stakeholders to rebuild trust one day at a time, one airplane at a time, and we'll do that by living our values, demonstrating transparency every step of the way, and delivering on our commitments. As part of our continued commitment to safety, we recently announced our first Chief Aerospace Safety Officer.
Consistent with these values is our focus on sustainability. We continue to make great strides in our efforts, innovating and operating to make the world better. We achieved net carbon – net zero carbon emissions at our manufacturing and worksites in 2020 by expanding conservation and renewable energy use, while tapping into responsible offsets for the remaining greenhouse gas emissions. Additionally, we've committed that our commercial airplanes will be capable and certified to fly on 100% sustainable aviation fuels by 2030.

Operational excellence is about how we work to deliver safe products and services to our customers, while continuously striving for first-time quality. We are also taking steps to restore the health of our production system. As we calibrate our production rates to the market impacts of COVID-19, we're taking the opportunity to implement quality, workplace safety, and productivity improvement projects to bring stability to our factories. And as Greg will cover later, this also extends to our engagement with suppliers.

And last but not least, we will not lose sight of our future and the innovations that will reshape air travel. We continue to invest in areas that are critical to our business, focusing on design practices and manufacturing technology that will position us for growth. We're also continuing to invest in our people. We recently announced that we will be providing most of our employees a one-time stock grant that will vest in three years as we recover and grow the business.

To close, our guiding principle here is that every decision that we make must help us navigate through this difficult period, while not diminishing our future competitiveness. We will take action to protect our business and our people by closely managing liquidity and driving lasting transformational change to make our business stronger and more resilient than ever.

And with that, let me turn it over to Greg. Greg?

**Gregory D. Smith**

*Executive Vice President-Enterprise Operations & Chief Financial Officer, The Boeing Co.*

Great. Thanks, Dave, and good morning, everyone.

Let's turn now to slide 6. Our revenue of $58.2 billion and core earnings per share of negative $23.25 reflected lower commercial delivery and service volume primarily due to COVID-19 as well as 787 production issues, partially offset by lower 737 MAX customer consideration charges when compared to 2019.

Full year earnings were also impacted by the $6.5 billion pre-tax charge on the 777X program, additional tax valuation allowance, and abnormal production costs related to the 737 MAX program. Operating cash flow of negative $18.4 billion reflected lower commercial deliveries and service volume as well as timing of receipts and expenditures.

With that, let's turn to slide 7 for fourth quarter results. Consistent with the full year results, revenue of $15.3 billion reflected lower commercial airplane deliveries and commercial service volume, partially offset by a lower 737 MAX customer consideration charge. Earnings in the quarter were also impacted by the charge on the 777X program, a $744 million charge related to the previously announced agreement between Boeing and the US Department of Justice, and 737 abnormal production costs.

Income tax in the quarter reflected the impact of an additional valuation allowance on deferred income tax assets, partially offset by the five-year net operating loss carry-back provision in the CARES Act. The $2.5 billion of non-cash valuation allowance booked in the quarter was based on the required accounting analysis to assess
recoverability of our deferred tax assets against future sources of taxable income. This is an accounting assessment which places a lot of weight on our recent losses leading to the charge this quarter.

It's important to note that this valuation allowance does not limit our ability to utilize deferred tax assets in the future periods. It does not change our outlook on future company results and has no impact on cash flows or future tax returns. When income generation returns to more normal levels, we can expect to see the allowance reverse and increase reported earnings.

Let's now move to Commercial Airplanes on slide 8. Revenue was $4.7 billion, driven by lower widebody delivery volume, partially offset by higher 737 deliveries and a lower 737 MAX customer consideration charge in the quarter compared to the same period last year. Operating margins declined driven by the charge on the 777X program, lower delivery volume, and $468 million of abnormal production costs related to the 737 program, again, partially offset by lower 737 MAX customer consideration charge.

As Dave mentioned, we began to receive regulatory approvals to resume 737 MAX operations in the fourth quarter, and we restarted 737 MAX deliveries in December last year. Last quarter, we shared with you that we had about 450 737 MAX aircraft built and stored in inventory. With deliveries of 27 aircraft in December and now 40 to date, this number has been reduced to approximately 410 aircraft in inventory. As we previously communicated, we expect to have to remarket some of these aircraft and potentially reconfigure them.

Deliveries from storage will continue to be our priority after assisting our customers with their return to service as we continue to work closely with our customers based on their fleet needs. Our estimated timing of 737 deliveries from storage has not changed since last quarter. That said we expect delivery timing and production rate ramp-up profile to continue to be dynamic given the pandemic.

There's no material change to our estimate total of abnormal costs of $5 billion. During the fourth quarter, we expensed $468 million of abnormal production costs which brought the cumulative abnormal costs expensed to date to $2.6 billion. We expect the remainder of this cost to be expensed as incurred largely in 2021.

Our assessment of the liability for estimated 737 MAX potential concessions and other considerations to customers and the expected cash impact timing did not change significantly in the fourth quarter from our previous assessment.

Cumulatively, we have accrued a $9.3 billion liability for the estimated potential concessions and other considerations. To date, we have made $3.7 billion of payments to customers in cash and other forms of compensation, including $600 million we paid this quarter. We have settlement agreements covering approximately $3 billion of the remaining liability balance of $5 billion.

Turning now to 787, as we've discussed, we continue to complete the inspections on our 787 program in our factories and in our supply chain. We have approximately 80 undelivered 787 aircraft in inventory. Based on what we know today, we anticipate that we will unwind the vast majority of these aircraft during 2021 and are working with our customers to facilitate this. But, as Dave mentioned, we still have some work ahead of us on this and we will keep you posted on the progress.

Our latest assessment of the financial impact of this effort and delivery delays have been included in our fourth quarter closing position. As we previously disclosed, the 787 program has near break-even gross margins due to the previously announced reductions in production rates and program accounting quantity.
If we are required to further reduce the accounting quantity and/or production rates or experience other factors that could result in lower margin, the program could reach a reach-forward loss in future periods. However, on a cash basis, the 787 unit margin has held up relatively well even with these lower production rates, and many of the underlying productivity and profitability drivers remain in place.

As Dave mentioned, we expect first delivery of the 777X to now occur in late 2023, and we recorded a $6.5 billion reach-forward loss in the program. Our decision to implement certain modifications to the aircraft design has added time to the schedule and results in additional costs. In addition to that factor, other key elements contributing to the reach-forward loss include the following: one, an updated assessment of the market demand and customers’ preferences on delivery timing based on continued dialogue with our customers; two, resulting adjustments to planned production rates and reduction in program accounting quantity to 350 aircraft.

As a reminder, initial accounting quantity doesn't represent the long-term potential size of the program. We see replacement demand for over 1,500 larger wide-body aircraft which will be well suited for the 777X. The approach we use to establish the accounting quantity is consistent with what we’ve used on other programs and, as part of our closing process, we always evaluate the initial accounting quantity on a quarterly basis even in program development to test that the program is not in a reach-forward loss position.

And lastly, other cost elements include increased change incorporation costs along with associated customer and supply chain impacts. The combination of these factors created significant pressure on the 777X program’s revenue and cost estimates, resulting in the reach-forward loss for the program. We still expect peak use of cash for the 777X program to be in 2020. The changes to the 777X program timeline will result in some cash flow headwinds in 2021 and 2022, but we expect cash flow to improve as we get closer to EIS and begin deliveries in late-2023. We anticipate the program to turn cash flow positive approximately one to two years after starting initial deliveries.

Commercial Airplanes backlog included more than 4,000 aircraft valued at $282 billion. The decline in backlog in the fourth quarter reflected aircraft order cancellations and removal of aircraft orders from our backlog due to the ASC 606 accounting standard, including our most recent assessment of 777X backlog due to the revised schedule.

Given the significant headwinds that remain in the market, BCA margin progression will be highly dependent upon future production rates and will take time. However, we are taking action today to make foundational lasting change through our business transformation efforts in order to help offset those headwinds as much as possible.

Let’s now move to Defense, Space & Security on slide 9. Fourth quarter revenue increased to $6.8 billion primarily driven by higher volume as well as a charge on the commercial crew program in the fourth quarter of 2019. Fourth quarter operating margins of 7.4% includes $275 million pre-tax charge on the KC-46A Tanker program primarily due to production inefficiencies including the impacts of COVID-19 disruption.

We received $5 billion in orders in the quarter, including a contract for two KC-46A aircraft from Japan, AEW&C upgrades for the Republic of Korea Air Force, and key proprietary space programs bringing the backlog now to $61 billion.

Let’s now turn to Global Services results on slide 10. In the fourth quarter, Global Services revenue declined $3.7 billion driven by lower commercial services volume due to COVID-19. Operating margins decreased to 3.8% due to lower commercial service volume and $290 million of pre-tax charges related to asset impairments primarily to reflect the updated fleet retirement assumptions driven by COVID.
During the quarter, BGS won key contracts worth approximately $7 billion which brings its backlog now to $21 billion. Although we saw slight uptick in commercial service demand in the fourth quarter, we continue to expect the recovery to take multiple years.

We continue to position our services business for the future, taking actions to right-size our operations. In addition, we are shaping our portfolio to ensure that we have the right solutions to help our customers and industry navigate the downturn and prepare for market recovery. The result of our efforts have already started to positively impact our operating margin performance.

Let's now turn to cash flow on slide 11. The disruption caused by COVID-19 on our airlines and global economy continues to put significant pressure on our cash receipts. Operating cash flow for the quarter was negative $4 billion driven by lower commercial airplane delivery volume, advanced payment timing, and commercial service volume.

Let's now move to slide 12 to discuss our liquidity position. We continue to proactively manage our cash position and assess our liquidity throughout this pandemic. We ended the fourth quarter with strong liquidity, including $25.6 billion of cash and marketable securities on our balance sheet, and have access to our $9.5 billion bank credit facility which remains undrawn as well continued access to capital markets. Our debt balance at the end of the quarter was $63.6 billion, reflecting our $4.9 billion bond issuance as well as debt repayments in the quarter.

As we discussed previously, we've been taking many actions to enhance liquidity, including suspending our dividend, reducing discretionary spending, matching 401(k) contributions in stock, pre-funding pension with stock, and most recently, awarding most of our employees a one-time stock grant that will vest in three years in lieu of merit increases this year. These actions reflect our continued de-risking strategy and are part of our balanced approach to ensuring we’re proactively meeting our obligations. We worked hard in the past to maintain disciplined cash management, while seeking opportunities to strengthen our balance sheet, and we will continue to do so.

Once cash flow generation returns to more normal levels, reducing our debt levels will be a key focus area. We believe we currently have sufficient liquidity and are not planning to increase our debt levels. However, we will continue to actively manage our balance sheet, including refinancing debt maturities. Our investment grade credit rating is important to us, and we'll continue to consider all aspects of our capital structure to strengthen our balance sheet.

Let's turn to the next slide. As we look forward into 2021, I'd like to provide you with some insight into some of the key drivers which are informed by the current market recovery expectations and customer discussions to date. 2021 will continue to be a challenging year. That said we expect upward trends from 2020. Based on what we know, we expect to see 2021 revenue improve from 2020. This will be driven mainly by higher 737 and 787 deliveries as we plan to unwind inventory and deliver from the production lines.

We expect BDS to generate low to single-digit growth in 2021 revenue compared to 2020. Excluding one-time events, we anticipate modest revenue growth. As for BGS, while we anticipate solid growth in our Government Services business in 2021, our commercial services will continue to be challenged due to COVID-19 impact. We expect BGS revenue to be relatively stable in 2021 versus 2020.

On the P&L side, we also expect improvement in 2021 primarily driven by higher commercial deliveries, absence of 2020 charges, and improved performance and benefits from continued business transformation efforts. These
impacts are primarily offset by higher interest expense. Also bear in mind that BCA will continue to book significant abnormal production costs for the 737 program in 2021.

Moving to cash flow, we continue to expect 2021 operating cash to be much improved from 2020, driven mainly by inventory burn-down associated with 737 and 787 programs. While higher deliveries will be a tailwind, the timing of advanced payments and burn-down of excess advance payments along with 737 customer settlement payments and higher interest payments will continue to be headwinds. The revised 777X schedule also creates headwind to our current cash profile versus our prior assumptions.

Bringing this all together, based on what we know today, we continue to expect 2021 to still be a use of cash and to be cash flow positive in 2022. We expect cash improvements from 2021 to 2022 to be driven by continued improvement on the 737 program due to lower customer considerations and higher delivery payments as well as commercial services.

And as I just outlined, our commercial delivery volume is a key driver for improvements from 2020 to 2021. Therefore, the drivers clearly hinge on the pace of commercial market recovery. Given the dynamic environment, we will continue to diligently work opportunities and monitor risk factors and keep you posted on further developments.

Now let's move to the last slide. Since the beginning of the pandemic, we have taken prudent and decisive action to get ahead of this to preserve cash so that we can navigate this crisis and also reshape our business so that we can emerge as a sharper, resilient, leaner enterprise. In addition to taking actions to de-risk our portfolio and bolster liquidity, we have also made operational changes to lower our production rates and adjust our workforce to align with the new market reality.

We have taken production rates for the 787 and 777 programs down by approximately half due to COVID impact and also moderated the ramp of the 737 production rate. We continue to take steps to reach our previously shared plan to bring our overall staffing levels to approximately 130,000 by the end of 2021.

As you know, we are progressing through extensive business transformation efforts that we introduced some quarters ago. The financial objectives we've established are measured in billions of dollars, and we expect them to be executed over a multiyear period. We expect the majority of our efforts will result in enduring, lasting changes that will enable us to be more efficient in the long term, laying the foundation for recovery, future margin expansion, and cash flow generation as the market recovers.

A combination of all of our actions in 2020 helped us generate more than $10 billion of liquidity, which was critical as we are navigating this very challenging environment. Approximately half of our transformation efforts are focused on reducing structural cost versus variable. We continue to make progress across all five pillars as we utilize a low production rate environment to transform and improve our business processes. Projects to improve operational stability, implement first-time quality initiatives, shape our portfolio with core markets, simplify our organizational structure, and reduce bureaucracy, all examples of efforts meant to create meaningful and lasting change to how we operate as well as our cost structure.

Through our portfolio and investment prioritization, we've reduced R&D and CapEx by $1.3 billion in 2020 from prior year. We also took out over $1 billion of indirect spending by reducing expenditures in areas such as freight and logistics, purchased services, and others. And as part of our footprint optimization, we sold or closed over 240,000 square feet in 2020 and have identified around 5 million square feet of additional potential reduction to be executed over the next few years.
There are a number of other initiatives that are yielding tens and hundreds of millions of dollars each, and these efforts will all add up. While we talk often about our transformation at the operational production level, every support organization in our company is on this journey. Our team at human resources, finance, IT, and more are all recalibrating their structures and operating models to simplify processes, eliminate unnecessary spending, reduce bureaucracy, and improve long-term performance and competitiveness. For example, within IT, our teams are evaluating opportunities to form or expand strategic partnerships with vendors that allow us to simplify and optimize our operations and reduce overall cost.

We're also evolving the way we work with our 12,000 suppliers. This began with our Boeing Supply Chain Principles, which take an expanded view at how greater collaboration can strengthen relationships that yield improvement in quality, affordability, performance, and on-time delivery. These principles were built on success, feedback and lessons learned in recent years throughout our supply chain.

And as we take action, we're ensuring that every step only further drives key improvement efforts in safety, quality, and delivery on building on our commitments. We've got the right team in place, and we're confident that we have the right actions put together, all supporting our future and our competitiveness.

With that, I'll turn it back over to Dave for some closing comments.

David L. Calhoun
President, Chief Executive Officer & Director, The Boeing Co.

Yeah, thanks, Greg. Listen, 2020 was a year like no other. Our world, our industry, our business and our communities were facing unprecedented challenges, and we're still in the midst of it.

In addition to navigating COVID-19, we also made important progress on the 737 as we engaged transparently and comprehensively with regulators, government leaders, customers, suppliers and our teams. Having done that, we'll be that much more prepared for airplane certification efforts going forward. The return to service of the 737 was a key step for us as we make fundamental changes to how we operate and rebuild trust one airplane, one interaction, one day at a time.

I'm proud of our team, and I thank them for the resilience and dedication that they demonstrated as we've navigated through this really difficult moment together. 2021 is an inflection point for our industry and certainly for Boeing. We've been through tough times before. We know how to overcome challenges and to adapt, and we will stand by our customers throughout this process. Driven by our values and with a focus on quality, safety, integrity, and transparency, we will emerge from this moment stronger, more competitive for the long term.

And with that, Greg and I will be happy to take a few questions. Thank you.
QUESTION AND ANSWER SECTION


Carter Copeland
Analyst, Melius Research LLC

Hey. Good morning, guys.

David L. Calhoun
President, Chief Executive Officer & Director, The Boeing Co.

Good morning.

Carter Copeland
Analyst, Melius Research LLC

Greg, I wondered if you could just give us some more color on the $6.5 billion on the 777X and how much of that was the accounting quantity. You mentioned 350 units, but I don't think you've mentioned what that changed from. I don't know if that was 500 or what that number was. So just give us a sense of how big that was and how it compares to the other pieces, be it change incorp and the modifications that you mentioned or customer settlements. Thanks.

Gregory D. Smith
Executive Vice President - Enterprise Operations & Chief Financial Officer, The Boeing Co.

Yeah. Yeah. Absolutely. Yeah, I'd kind of put it into four major categories. Certainly, the planned production rates associated with the schedule move and, as you said, the reduction in the accounting quantity. And as I mentioned, every quarter we go through this assessment. But as a result of what we're seeing in the marketplace and with the current pandemic as well as kind of how we're seeing the marketplace shift in the near term, we reduced our assumptions around the accounting quantity for this quarter.

But, again, pretty consistent from – certainly a consistent process, but pretty consistent with what we've seen on some of the other programs when we've established an accounting quantity. And then, of course, we talked about changing corp costs for the aircraft that are currently built as well as we'll have the rate much lower through this period between now and 2023 and the change incorp associated with those. And I'd say last one would be customer and supply chain impacts considering the delays. Signal – I'd say the largest one in there, Carter, is around the accounting quantity.

Carter Copeland
Analyst, Melius Research LLC

Okay. So those were in order, rank order. And then just can you give us a sense of how much of a decrease in the accounting quantity that move to 350 represented?

Gregory D. Smith
Executive Vice President-Enterprise Operations & Chief Financial Officer, The Boeing Co.

Yeah. From prior quarter, we had 50 additional units in there. So we had a quantity of 400 we assumed.
Carter Copeland
Analyst, Melius Research LLC

Okay. Thanks.

David L. Calhoun
President, Chief Executive Officer & Director, The Boeing Co.

The only other point is, it's really important to know that the 50 that move out are the ones at the tail end and those are where cash margins are significant. So you end up with a little bit of a double whammy there.

Carter Copeland
Analyst, Melius Research LLC

Understood. Thank you.

Gregory D. Smith
Executive Vice President-Enterprise Operations & Chief Financial Officer, The Boeing Co.

Yeah. You're welcome.

Operator: Our next question is from Myles Walton with UBS. Please go ahead.

Myles Walton
Analyst, UBS Securities LLC

Thanks. Good morning. Hey, on the 787, Greg, I think in early December you were looking for a restart of deliveries into year-end, and obviously, there must have been some incremental discoveries and rechecking. Just curious what's the level of confidence now versus then? And then also, is there any FAA requirement for sign-off on what you're looking to do and approve prior to the restart of deliveries? Thanks.

Gregory D. Smith
Executive Vice President-Enterprise Operations & Chief Financial Officer, The Boeing Co.

Yeah. I'd put it into a couple categories, one of which is some of the inspections have taken longer, and they have also expanded for complete thoroughness across not only our factories but within the supply chain. So that's taken longer.

Look, from day one, we've been engaged with the FAA and continue to be engaged as we work through this process and will continue to right up until we're ready to resume deliveries. So complete transparency there, of course, and clarity around what we're doing, how we're doing it and the path to recovery, again, when we resume deliveries.

I don't know, Dave, if you had anything you wanted to add.

David L. Calhoun
President, Chief Executive Officer & Director, The Boeing Co.

Well, there won't be a formal sign-off in that regard. But, without a doubt, we will make sure the FAA is comfortable with every act we've taken. And I'll only add the comment that this expansion of inspection and quality assurance and all those things, maybe I'll take a hit on that one. But this is a moment where we get to fix some things and do some things the way we would like to do them.
And so I have put very little pressure on production and engineering team to resolve things too quickly. I want it to be thorough and done, and I want to prevent future rework around this stuff. And I have to tell you, these specs are incredibly exacting. So I’m proud of the design principles that we have used in it. But, anyway, will just probably take stepping it up a bit.

Myles Walton
Analyst, UBS Securities LLC

Okay. All right, thank you.

Operator: Next question is from Noah Poponak with Goldman Sachs. Please go ahead.

Noah Poponak
Analyst, Goldman Sachs & Co. LLC

Hi. Good morning, everyone.

David L. Calhoun
President, Chief Executive Officer & Director, The Boeing Co.

Morning.

Gregory D. Smith
Executive Vice President-Enterprise Operations & Chief Financial Officer, The Boeing Co.

Morning.

Noah Poponak
Analyst, Goldman Sachs & Co. LLC

Greg, there’s a lot of debate out there about the aircraft unit margins. A few years down the road when things are a little bit more normal. The 777 is obviously in a unique situation. But with the MAX and the 787, there are questions about if you’re having to give on price on the MAX and then if these really impressive cash margins you had for a while on 787 can hold it at the lower rate. So I wonder if you could spend a little bit of time on that. How can we think about where those airplane margins can be a few years down the road at more normal rates compared to pre-pandemic, pre-grounding?

Gregory D. Smith
Executive Vice President-Enterprise Operations & Chief Financial Officer, The Boeing Co.

Yeah. Clearly, as you said, volume is going to be key in that. So, as we have talked about, as we see 737 increasing in production and delivery, that’s going to play right into, clearly, the unit cash margin, and that profile pretty much aligns with delivery profile and rate projections that we have.

On the 787, as I mentioned, even at these low rates on a unit basis, cash is pretty good. And that’s the efforts of the past for sure and having a good product mix between 8s, 9s, and 10s. And again, that’s going to go up with volume, and that’s obviously not taking into consideration the advances that will come with that increased volume on both of those programs.

But, by far, those are the two single drivers to the cash flow positive particularly in 2022 and beyond. And then, beyond that, it’s the 777X as we talk about getting out of the use of cash and into positive cash as I just
mentioned. Those three elements, again, are going to be key to the cash trajectory between now and 2023 and 2024 and beyond.

Noah Poponak  
Analyst, Goldman Sachs & Co. LLC

So, if we're in 2023 and the MAX rate is hypothetically in the low 40s a month and the 787 is hypothetically 6 a month, can those unit cash margins actually be fairly close to where they were pre-pandemic, pre-grounding based on all the cost action and keeping pricing pretty similar or is that unrealistic?

Gregory D. Smith  
Executive Vice President - Enterprise Operations & Chief Financial Officer, The Boeing Co.

Well, that's certainly the objective, and part of the transformation effort that we're doing is trying to lean ourselves out and we'll work to that profile. But volume is going to be key. So if you get to those rates, like I said, the cash is going to follow that. And the environment we're in today, how that recovers and the assumptions that our customers have and therefore we have, that's got to stick. And if it sticks, then you'll see the trajectory on cash go with those production ramps by no question.

But, at the same time, these transformation efforts, as I said, they go over multiple years, and that's the objective. Certainly, lean ourselves out, get ourselves even more competitive on the other side of this and really reduce the structural cost within our company so we can be more efficient; all that also is going to play out in the cash profile over that time period.

David L. Calhoun  
President, Chief Executive Officer & Director, The Boeing Co.

Yeah. Maybe if I could just comment on the place in question, which is an important question, I do anticipate us being through our inventory in 2022 on the MAX. I think we can stay disciplined every step of that way, and indications are that we can. And then when we get into 2023, which is where the question is, I see no reason why the competitive dynamics are any different. I really don't.

The value of these two airplane competitors, the value of their airplanes is not much has changed. We will have demonstrated performance on the MAX that is very good for the applications that it competes for. And their airplane will have advantages on other applications, but I'm confident in that competitive dynamic and believe we'll get right back to where we were, if not something better.

And I know, Greg, I'm not sure if his restructuring discussion broke up on you like it did for me when I was listening to it.

Noah Poponak  
Analyst, Goldman Sachs & Co. LLC

Little bit. Yeah.

David L. Calhoun  
President, Chief Executive Officer & Director, The Boeing Co.

But the structural changes that we're making and the cost advantages that we intend to get from it, something in that $5 billion range, these will accrue to our airplanes. And, anyway, I'm optimistic. I'm quite optimistic. There's nothing about the market right now that has me switched off on that. But we are talking about 2023.
Noah Poponak  
*Analyst, Goldman Sachs & Co. LLC*

Yeah.

David L. Calhoun  
*President, Chief Executive Officer & Director, The Boeing Co.*

It's going to take that long for us to sort of work our way out of the COVID world.

Noah Poponak  
*Analyst, Goldman Sachs & Co. LLC*

Yeah. Thanks. Thank you.

**Operator:** Our next question is from Cai Von Rumohr with Cowen and Company. Please go ahead.

Cai von Rumohr  
*Analyst, Cowen and Company*

Yes. Thanks so much. So, you said $5 billion in abnormal production costs. You've done $2.9 billion to date, and yet, sequentially those abnormal costs came down throughout the year. I think they ended at $330 million in the fourth quarter. If you have $2.1 billion to go, which is what the math suggests, it would suggest it moves up. So can you give us some idea of the profile moving forward?

And secondly, some idea in terms of the delivery cadence; I could understand that maybe you have very strong MAX deliveries now because people haven't gotten them, and then maybe they fall off in 2022-2023. Thanks.

Gregory D. Smith  
*Executive Vice President-Enterprise Operations & Chief Financial Officer, The Boeing Co.*

Yeah. So kind of on the abnormal costs, Cai, like I said, it can be bumpy or lumpy from quarter to quarter. But, like we said, we're on a profile to kind of wrap that up as we increase rate. So it's directly tied to the rate where we'll stop booking abnormal costs, and it will move back into the program.

I think, on the delivery profile, certainly, we've got a delivery profile laid out in detail for the balance of the year and going into 2022 and 2023. We don't see any reduction taking place there. As Dave indicated on the production rates that we've established not only delivering out of inventory, which, as you know, is our priority one, but also increasing those rates as we go forward. So that profile continues delivering off, like I said, the backlog but also delivering off the inventory that we've got on the ramp.

And I don't know whether it was picked up earlier or not, but all the deliveries we've had to date, the 40 aircraft, have all come out of inventory. So, again, it will be a combination, but the priority will continue to be on those inventoried aircraft. So we see strong demand for the aircraft and, again, tied to the recovery, and teams positioned to deliver at high rates. We've certainly got the capital and the capacity and the capability to do that. It will really be informed by our customers' ability to take them in a specific time period.

Cai von Rumohr  
*Analyst, Cowen and Company*

Thank you.
Good morning. President, Chief Executive Officer & Director, The Boeing Co. David L. Calhoun
Hey, Peter.

Operator: Our next question is from Seth Seifman with JPMorgan. Please go ahead.

Seth M. Seifman
Analyst, JPMorgan Securities LLC
Thanks very much. Good morning. Wanted to ask about 787 and I think, Greg, you mentioned about 80 aircraft in inventory. What’s sort of the normal level of aircraft in inventory? And as we think about continuing to produce over 60 aircraft this year and the state of the wide-body market, how do you not end the year with still having aircraft in inventory going into 2022?

Gregory D. Smith
Executive Vice President-Enterprise Operations & Chief Financial Officer, The Boeing Co.
Yeah. You’re right, Seth. We’ll have some. That’s what I was mentioning earlier that we expect to deliver the majority of that 80 through the balance of 2021. And it will be back-loaded, as Dave indicated, on our current assumptions of when we believe we can start deliveries. So there will still be some burn-off in 2022, but like I said, the majority of that will be in 2021 and be back-loaded associated with that.

Seth M. Seifman
Analyst, JPMorgan Securities LLC
But does that mean the vast majority of the 80 plus all of what is produced?

Gregory D. Smith
Executive Vice President-Enterprise Operations & Chief Financial Officer, The Boeing Co.
Yes. Yeah.

Operator: Our next question is from Peter Arment with Baird. Please go ahead.

Peter J. Arment
Analyst, Robert W. Baird & Co., Inc.
Yes. Good morning, Dave, Greg.

Gregory D. Smith
Executive Vice President-Enterprise Operations & Chief Financial Officer, The Boeing Co.
Hey, Peter.

David L. Calhoun
President, Chief Executive Officer & Director, The Boeing Co.
Good morning.

Peter J. Arment
Analyst, Robert W. Baird & Co., Inc.
Hey, Greg, maybe just if you can just highlight your assumptions or at least trying to understand the dynamics of the use of cash in 2021, the cadence. Should we expect it to kind of improve throughout the year? Or maybe just any color there as we get into 2022. Thanks.

Gregory D. Smith  
Executive Vice President-Enterprise Operations & Chief Financial Officer, The Boeing Co.

Yeah. No. As you kind of look at it over a quarterly basis, Q1 will be the more challenging quarter, really again, tied to the inventory burn-off on the 787 in particular, and then just, I'll say the cadence of deliveries on the MAX. So, Q1 will be the biggest use and little bit less in Q2, and then it will start to moderate through Q3 and Q4. So look for a big use of cash in Q1, but again all tied to those two programs predominantly. So, as we resume deliveries on the 787, we'll start to burn that inventory down. You'll see the benefit of that in the second, third and fourth quarter.

Peter J. Arment  
Analyst, Robert W. Baird & Co., Inc.

Appreciate it. Thanks.

Gregory D. Smith  
Executive Vice President-Enterprise Operations & Chief Financial Officer, The Boeing Co.

You're welcome.

Operator: And next we go to Doug Harned with Bernstein. Please go ahead.

Douglas S. Hamed  
Analyst, Sanford C. Bernstein & Co. LLC

Good morning. Thanks.

Gregory D. Smith  
Executive Vice President-Enterprise Operations & Chief Financial Officer, The Boeing Co.

Good morning, Doug.

Douglas S. Hamed  
Analyst, Sanford C. Bernstein & Co. LLC

If I go back a year ago in this call, Dave, you talked about – that's when you put the NMA kind of aside, on hold, and were relooking at how to think about development. Right now, you talked about the competitiveness of the MAX versus the competition, the A320neo, and certainly, can see that certainly at the MAX 8 if you look for transcon flights, very competitive airplane.

But Airbus has been very successful with the 321XLR which can do a lot of the 757 missions, and can't really see how the MAX can compete up on those missions. So when you look forward, are you ready to cede that market now? How do you think of these sort of narrow transatlantic routes, situations like that? How will you approach that over the long term?

David L. Calhoun  
President, Chief Executive Officer & Director, The Boeing Co.
Well, over the near term, it is what it is. And again, I think about a portfolio of airplanes, not just any one. And while we take all of the face-offs that we go through in order and in those routes that you described for the 321, I get it completely, so does our team.

Broadly speaking and on balance across the portfolio, we like where our portfolio plays with a MAX at the lower end and the 787 at the higher end and very successful airplanes. So that just said – all that means is we're going to take our time. I'm pretty sure you're in the right space, although I'm not going to point design today. I think you're pretty much in the right space with respect to where next development efforts lean, but I don't want to call it out just yet.

And I'll go right back to the comment I made in the beginning. We are really progressing well on our engineering and manufacturing forward technology development so that we're ready when that moment comes to offer a really differentiated product. So I'm sure it's not a lot of rocket science for you to add up and guess where things end up, but we're not going to call out that point design. This isn't the moment. We're going to take a little time, and we don't feel significantly disadvantaged with our portfolio versus their portfolio. So anyway, that's how we think about it. And we are thinking long term. That's for sure.

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**Douglas S. Hamed**
Analyst, Sanford C. Bernstein & Co. LLC

Q: Any timeframe you can suggest? I mean, given the cash pressure now, near term seems hard. But what kind of timeframe in the future? Or how would engines play into that timing?

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**David L. Calhoun**
President, Chief Executive Officer & Director, The Boeing Co.

A: Yeah. Well, engines always play into it. I don't think they're going to play into it anywhere near the extent to which they used to, simply because the demands on that propulsion system and the next go-around, I don't think are going to be as significant and now I'm just – I'm going to, I think, speak to the industry and what I know they're capable of doing or not.

So therefore, differentiation at the airframe level itself is really, really important in next run, which means that these technologies that we are working with and trying to demonstrate to ourselves at scale with determinant assembly, those are the things that will differentiate. And believe it or not, that becomes the most important criteria for us with respect to announcing that next airplane. It's got to depend on these advanced technologies, and it will. So – and I don't feel in any way, shape or form that one year or two years more in the market to learn more is going to hold us back in any way, shape or form or hurt The Boeing Company in any way, shape or form. So that's the perspective I put on it.

Right now, we're getting no pressure, as you might imagine, from airlines to run forward as fast as we can. And that's a bit of a luxury on this subject. But the most important thing for me and the Boeing team is to get these underlying technologies proven, demonstrated at scale, so that when we call that point design, we're ready and we'll deliver.

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**Douglas S. Hamed**
Analyst, Sanford C. Bernstein & Co. LLC

Q: Okay. Great. Thank you.
Hunter Keay: Next, we'll go to Hunter Keay with Wolfe Research. Please go ahead.

Hunter Keay: Thank you. Good morning, everybody.

David L. Calhoun: Good morning.

Gregory D. Smith: Good morning, Hunter.

Hunter Keay: Hey. Greg, as you think about free cash flow beyond 2021, how will orders over the next 12 months impact your decisions on rates, which, of course, also inform the cadence of advances? So holding other things constant like the concession payments and the timing of PDPs, can you help me better understand in terms of what your expectations are for order activity and how that will dovetail into production rate decisions and advances through the cash flow line? Thanks.

Gregory D. Smith: Yeah. And to your point, I mean, we've taken that into consideration at the current rates that Dave talked about through that period. So the advance timeline associated with that is tied right to how we see near term those production rates. So, obviously, if we modify those in any way, it will have an impact on advances. But I would say, separate from that, the delivery profile of 787 and 737 are going to be the biggest contributors to the growth of cash flow. Now, certainly, advances will help as we get lead time away on rate increases, but delivery profile alone will be one of the more significant drivers.

So, as I said before, looking from the outside, watch the delivery profile on both of those programs in particular, and they'll align right to our cash flow profiles and projections we have going forward. And then advances will be a little to further out from this time period just because of the rate increases, particularly on the 737, as we burn off some of the excess advances, and then the advances on the 787 will be again tied to the rate increases beyond the 2021/2022 timeframe.
And then when you get to the 787, the only wild card that is more upside than downside is if there is a detente, if you will, with respect to the trade agreements between the United States and China. And the agreements are in place. It's just a question of whether the posture changes in any way that allows for that phase one deal to move forward. It's a big plus for any administration in light of the number of jobs it supports in the United States, and so we're optimistic on that front. But if that panned out and panned out reasonably quickly, that's more up than down.

Hunter Keay
Analyst, Wolfe Research LLC

Thank you.

David L. Calhoun
President, Chief Executive Officer & Director, The Boeing Co.

Yeah.

Operator: And next we'll go to Jon Raviv with Citi. Please go ahead.

Jonathan Raviv
Analyst, Citigroup Global Markets, Inc.

Hey. Thank you, and good morning.

Gregory D. Smith
Executive Vice President-Enterprise Operations & Chief Financial Officer, The Boeing Co.

Good morning, Jon.

Jonathan Raviv
Analyst, Citigroup Global Markets, Inc.

Dave, you – good morning. You mentioned that defense is a critical source of stability here. I know it's not talked about too much, because – agree, it's not where a lot of the delta is these days. But nevertheless, what is your perspective on the underlying growth there?

And then your perspective on why Boeing Defense, at least, from our – from externally looking at it, has not participated in the same growth that others have seen? Others have been growing mid to high-single digits, still looking at maybe low to mid-single digits growth in 2021. You guys are still looking at maybe low or very modest growth. So what's your perspective on that? And then also, looking forward, is there an opportunity for sales growth to accelerate perhaps based on some of those big new wins that you've lodged over the last few years? And what would the impact on margin be as those programs ramp up? Thank you.

David L. Calhoun
President, Chief Executive Officer & Director, The Boeing Co.

Greg, can I start? And you can fill in as you see fit?
Yeah. So it has been and we continue to believe that we're going to have stable growth admittedly at the lower end of the single digits. And that's the best guidance we can talk about, because we do think there is pressure that will ultimately come down as a result of all the COVID spending here in the United States. But a large part of our business now is international markets, and the order activity in those international markets has pushed to the right somewhat and almost entirely because of COVID-related stuff, not because of any competitive issue one way or the other.

So we still like our position, because we have an awful lot of ongoing programs that the military and, of course, our defense bills have been kind to in each and every one of their moments. And this last bill was a good one for us in pretty much every respect. So it's hard to commit to a big uptick in any way on growth rates any time soon in light of what I think are the pressures.

The only other comment that I would make is there's a big segment of work that we do in the classified world that is incredibly encouraging and incredibly important to us, and I believe not just for our defense world, but also ultimately derivative technologies for the commercial world that that's going to be a big source of competitive advantage for Boeing. So we're high on it, but I'm very reticent to want to suggest the market is going to get any better or that we're going to differentiate ourselves any further than what we have been.
David Strauss

Analyst, Barclays Capital, Inc.

Just wanted to go back and touch on 787. Can you talk about these 80 aircraft that you have in storage? How many at this point, if any, have been reworked? What exactly is involved in that? The cost involved? Is there any sort of customer compensation that you're assuming given the delays on these aircraft?

Gregory D. Smith

Executive Vice President-Enterprise Operations & Chief Financial Officer, The Boeing Co.

Yeah. The cost associated with it, David, we've provisioned for that in our bookkeeping. So I think we've got (01:14:10) well understood and covered. I don't have the specific number of aircraft that have been reworked, but there's a number that are complete. And as Dave said, we've still got some work to do. Our engineering team does with final dispositions that will inform whether we have additional rework or not, and we'll adjust the schedule accordingly. But we've made a provision in there for what we think are associated costs related to the delay and to any rework associated with these inspections.

David Strauss

Analyst, Barclays Capital, Inc.

Okay. Greg, can you give a little bit more detail on what exactly is involved in the rework? Is it just exterior? Or is there a fair amount of interior work that's got to be done as well to get the airplanes back to spec?

Gregory D. Smith

Executive Vice President-Enterprise Operations & Chief Financial Officer, The Boeing Co.

Yeah. I mean, it's around the structure. As we've talked about, you've seen around certain areas of the join that the team's got to go in and inspect and potentially rework within the structure. That's primarily it. So it's nothing outside of that as far as interior. It's around some of those joins. And like we talked earlier, we have been expanding the expansion back into the supply chain as well, but all kind of around the join areas where we've got multiple buildups of different materials. And do we have the appropriate shims in there and if we need to do any additional rework or inspection, that's what's – essentially what's taking place.

David Strauss

Analyst, Barclays Capital, Inc.

Okay. And I think there were some airplanes, a handful of airplanes that were grounded, but do you think there are any additional implications to the install base from what you've found?

Gregory D. Smith

Executive Vice President-Enterprise Operations & Chief Financial Officer, The Boeing Co.

Not at this time. No.

David L. Calhoun

President, Chief Executive Officer & Director, The Boeing Co.

No. And those ones that were grounded and ultimately proven okay involved more than what we're working on now. It was a combination of factors, and we know one of those factors has been eliminated.

David Strauss

Analyst, Barclays Capital, Inc.

Yeah. All right. Thanks very much.
Operator: And next we'll go to Rob Spingarn with Credit Suisse. Please go ahead.

Robert Spingarn
Analyst, Credit Suisse Securities (USA) LLC

Hi. Good morning.

Gregory D. Smith
Executive Vice President-Enterprise Operations & Chief Financial Officer, The Boeing Co.

Good morning, Rob.

Robert Spingarn
Analyst, Credit Suisse Securities (USA) LLC

Dave, I wasn't going to ask on product development, but your answer to Doug makes it somewhat more compelling now. When you distinguish between engine advances and the airframe and production advances, does this mean that the next aircraft is not necessarily a platform to introduce a future propulsion technology like they're talking about in Europe and therefore, that the next plane would be conventionally powered?

David L. Calhoun
President, Chief Executive Officer & Director, The Boeing Co.

Yeah. I believe that, yes. And I'm on the record of saying that. Hydrogen power, I just believe, has a much longer timeline than the timeline that, at least, I read, like you did. I have a fair amount of experience with hydrogen. Our company has an incredible amount of experience with hydrogen. At least, in the size of airframe that we're all talking about, we can experiment down at the very low end, but that's not going to be a meaningful market here. And the advent of sustainable fuel, already, already we're capable of living with that sustainable fuel. I believe that's going to be the 15-year answer to 2050 guidelines and approaches, because we've all worked with it, experimented with it, we know it works, and now we've got to develop a supply line for it. But I believe it's the only answer between now and 2050.

Robert Spingarn
Analyst, Credit Suisse Securities (USA) LLC

Okay. Thank you very much. Very helpful.

Maurita B. Sutedja
Vice President-Investor Relations, The Boeing Co.

Operator, we have time for one more question.

Operator: And that will be from Sheila Kahyaoglu with Jefferies. Please go ahead.

Sheila Kahyaoglu
Analyst, Jefferies LLC
Hi. Good morning, everyone. Thank you for the time.

Gregory D. Smith  
Executive Vice President-Enterprise Operations & Chief Financial Officer, The Boeing Co.

Good morning, Sheila.

Sheila Kahyaoglu  
Analyst, Jefferies LLC

Greg, you mentioned last quarter PDPs significantly impact 2021 free cash flow. Just in light of additional 787 build that we're seeing here and the MAX unwind, is it fair to say you unwind a majority of those 787s that are sitting there right now and 200 MAXs, you got an $8 billion inventory benefit, and then the advances or the PDPs are a similar offset in 2021? And then how does that look into 2022?

Gregory D. Smith  
Executive Vice President-Enterprise Operations & Chief Financial Officer, The Boeing Co.

Yeah. You're right. If you look at 2020 to 2021, certainly the largest driver of the improvement in cash flow there will be the 787 deliveries. And as we talked about, they will be more back-loaded. We'll also have the increase in the 737 deliveries. But as you indicated, we have excess PDPs. So they're being utilized and will be utilized on some of these deliveries.

So you really won't see the, I'll say, true-up of that until you move from 2021 into 2022. But when you look at the growth profile from 2021 to 2022, again, 737 is a key driver to that. So back to my comments earlier around the rate profile and the delivery of the aircraft off the ramp, that is the single biggest driver as you look at 2021 to 2022 as it sits here today, so. And the advances start to true-up in that time period as well and I'll say kind of get more to a normalized level of advances. But those are ultimately the key drivers year-over-year.

Sheila Kahyaoglu  
Analyst, Jefferies LLC

Okay. Thank you.

Gregory D. Smith  
Executive Vice President-Enterprise Operations & Chief Financial Officer, The Boeing Co.

You're welcome.

Maurita B. Sutedja  
Vice President-Investor Relations, The Boeing Co.

All right. That completes The Boeing Company's fourth quarter 2020 earnings conference call. Thank you, all, for joining us.

David L. Calhoun  
President, Chief Executive Officer & Director, The Boeing Co.

Thank you.
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